



Comments to the:

DEPARTMENT OF COMMERCE

**National Telecommunications and
Information Administration
DEPARTMENT OF AGRICULTURE
Rural Utilities Service**

[Docket No. 090309298–9299–01]

**American Recovery and Reinvestment
Act of 2009 Broadband Initiatives**

Thursday, April 9, 2009

**Spacenet Contact:
Alan Freece
Phone: 703-848-1283
Email: alan.freece@spacenet.com**

Executive Summary

The American Recovery and Reinvestment Act is a historical economic recovery plan. Its goal is to save million of jobs over the next two years and improve critical areas of our infrastructure in order to bring lasting change for future generations. As part of this Act, the Broadband Stimulus Plan will provide significant investments in our national Information Technology infrastructure. Proper implementation will enable broadband for the rural communities of the unserved and underserved areas.

Satellite will be a critical component of the Broadband Stimulus Plan. Satellite is an ideal option for high-speed always-on broadband connectivity that can be quickly deployed in virtually any location and for any size organization. Satellite provides a quick deploy, flexible and re-useable network solution to satisfy both short and long-term objectives. The roll-out of satellite networks for broadband connectivity will create a job multiplier affect by employing numerous technology vendors, equipment suppliers, field services personnel, and by creating numerous jobs in the local communities served. By supporting the use of satellite technologies, the federal government can ensure 100% nationwide coverage and achieve its goal of promoting broadband access to rural, unserved and underserved areas. In addition, it will help create jobs for thousands of Americans involved in the satellite services supply chain.

Satellite technologies will uniquely satisfy the stated objectives of ARRA, BTOP and RUS.

- **“Accelerate the deployment of broadband to areas which are unserved and underserved”**
- **“Create Jobs”**
- **“Provide significant Public Benefit”**
- **“Provide broadband services to consumers in unserved areas”**
- **“Improve access to underserved areas”**
- **“Provide Broadband access for: Schools, Libraries, Colleges, Community Centers and Health Care providers”**
- **“Provide Broadband for Public Safety Agencies”**
- **“Stimulate demand for broadband services thereby creating economic growth and job creation”**

The format is: NTIA, RUS questions followed by Spacenet's answer

1. *The Purposes of the Grant Program:* Section 6001 of the Recovery Act establishes five purposes for the BTOP grant program.

a. Should a certain percentage of grant funds be apportioned to each category?

ANSWER: The NTIA and RUS should give priority to applicants who can deliver services in the near term which serve all five purposes and cover all rural unserved and underserved areas. You should consider a grouping of users into: Group 1) Consumers, Home Office users and Small Businesses; Group 2) Libraries, Schools, Community Centers and Public Safety organizations.

b. Should applicants be encouraged to address more than one purpose?

ANSWER: Yes, the most efficient and effective solutions should have multiple purposes.

c. How should the BTOP leverage or respond to the other broadband-related portions of the Recovery Act, including the United States Department of Agriculture (USDA) grants and loans program as well as the portions of the Recovery Act that address smart grids, health information technology, education, and transportation infrastructure?

ANSWER: Given the opportunity, the BTOP should combine the objectives from other areas of the ARRA.

2. *The Role of the States:* The Recovery Act states that NTIA may consult the States (including the District of Columbia, territories, and possessions) with respect to various aspects of the BTOP. The Recovery Act also requires that, to the extent practical, the BTOP award at least one grant to every State.

a. How should the grant program consider State priorities in awarding grants?

ANSWER: The NTIA and RUS should encourage the state and local agencies to partner with companies whose technologies can be deployed quickly, efficiently and seamlessly across their state.

b. What is the appropriate role for States in selecting projects for funding?

ANSWER: States should be consulted and encouraged to apply for grants that meet the stated objectives of the BTOP and RUS.

c. **No Comments**

d. How should NTIA ensure that projects proposed by States are well executed and produce worthwhile and measurable results?

ANSWER: Through financial and program audits.

3. *Eligible Grant Recipients:* The Recovery Act establishes entities that are eligible for a grant under the program. The Recovery Act requires NTIA to determine by rule whether it is in the public interest that entities other than those listed in Section 6001(e)(1)(A) and (B) should be eligible for grant awards.

What standard should NTIA apply to determine whether it is in the public interest that entities other than those described in Section 6001(e)(1)(A) and (B) should be eligible for grant awards?

ANSWER: Quickest availability of service, least cost, and serves multiple community interests.

4. *Establishing Selection Criteria for Grant Awards:* The Recovery Act establishes several considerations for awarding grants under the BTOP. In addition to these considerations, NTIA may consider other priorities in selecting competitive grants.

a. What factors should NTIA consider in establishing selection criteria for grant awards?

ANSWER: Timing to deliver the services, efficiency, area of coverage, flexibility of speeds delivered, and ability to serve multiple purposes.

How can NTIA determine that a federal funding need exists and that private investment is not displaced?

ANSWER: Examining the scope of private investment proposals demonstrates the lack of funding available for rural unserved and underserved areas.

How should the long term feasibility of the investment be judged?

ANSWER: It should make long term economic sense, create jobs and serve the Public Interest.

b. No Comments

c. How should the BTOP prioritize proposals that serve “underserved” or “unserved” areas?

ANSWER: Unserved should be the first priority, and Underserved the second priority.

Should the BTOP consider USDA broadband grant awards and loans in establishing these priorities?

ANSWER: Grants only.

d. Should priority be given to proposals that leverage other Recovery Act projects?

ANSWER: NTIA should strive to do this leverage by giving priority to service providers that can serve other purposes of ARRA.

e. Should priority be given to proposals that address several purposes, serve several of the populations identified in the Recovery Act, or provide service to different types of areas?

ANSWER: Definitely YES

f. What factors should be given priority in determining whether proposals will encourage sustainable adoption of broadband service?

ANSWER: The major factor should be the underlying “value proposition” from the customers point of view.

g. Should the fact that different technologies can provide different service characteristics, such as speed and use of dedicated or shared links, be considered given the statute’s direction that, to the extent practicable, the purposes of the statute should be promoted in a technologically neutral fashion?

ANSWER: Flexibility of speeds delivered and serving multiple purposes in a single community should be given top priority as this will reduce cost.

h. What role, if any, should retail price play in the grant program?

ANSWER: It is a benchmark.

5. No Comments

6. *Grants for Expanding Public Computer Center Capacity:* The Recovery Act directs that not less than \$200,000,000 of the BTOP shall be awarded for grants that expand public computer center capacity, including at community colleges and public libraries.

a. No Comments

b. What additional institutions other than community colleges and public libraries should be considered as eligible recipients under this program?

ANSWER: Police departments, fire departments state emergency management agencies, hospitals,clinics and all public safety groups

7. *Grants for Innovative Programs to Encourage Sustainable Adoption of Broadband*

Service: The Recovery Act directs that not less than \$250,000,000 of the BTOP shall be awarded for grants for innovative programs to encourage sustainable adoption of broadband services.

a. What selection criteria should be applied to ensure the success of this program?

ANSWER: Programs which offer infrastructure, network management and training.

b. No Comments

8. *No Comments*

9. *Financial Contributions by Grant Applicants:* The Recovery Act requires that the federal share of funding for any proposal may not exceed 80% of the total grant. The Recovery Act also requires that applicants demonstrate that their proposal would not have been implemented during the grant period without Federal assistance. The Recovery Act allows for an increase in the Federal share beyond 80% if the applicant petitions NTIA and demonstrates financial need.

a. **No Comments**

b. **No Comments**

c. What showing should be necessary to demonstrate that the proposal would not have been implemented without Federal assistance?

ANSWER: Financial analysis which shows that without Federal funding the project would not yield a reasonable ROI.

10. *No Comments*

11. *Reporting and Deobligation:* The Recovery Act also requires that grant recipients report quarterly on the recipient's use of grant funds and progress in fulfilling the objectives of the grant proposal. The Recovery Act permits NTIA to de-obligate funds for grant awards that demonstrate an insufficient level of performance, or wasteful or fraudulent spending (as defined by NTIA in advance), and award these funds to new or existing applicants.

a. How should NTIA define wasteful or fraudulent spending for purposes of the grant programs?

ANSWER: Financial reviews and customer satisfaction polling.

b. **No Comments**

c. **No Comments**

12. *No Comments*

13. *Definitions:* The Conference Report on the Recovery Act states that NTIA should consult with the FCC on defining the terms "unserved area", "underserved", and "broadband." The Recovery Act also requires that NTIA, shall in coordination with the FCC, publish non discrimination and network interconnection obligations that shall be contractual conditions of grant awards, including, at the minimum adherence to the principles contained in FCC's broadband policy statement.

a. For purposes of the BTOP, how should NTIA, in consultation with the FCC, define the terms "unserved area" and "underserved area"?

ANSWER: "Unserved areas" have no economically attractive broadband service. "Underserved areas" have no competitive broadband service or the service is too slow for effective use.

b. How should the BTOP define "broadband service"?

ANSWER: Depends upon the target customer.

1) Should the BTOP establish threshold transmission speeds for purposes of analyzing whether an area is "unserved" or "underserved" and prioritizing grant awards?

ANSWER: Yes, but this should be different for consumers, home businesses, small businesses, community centers, libraries, schools, public safety organizations.

Should thresholds be rigid or flexible?

ANSWER: Flexible.

2) Should the BTOP establish different threshold speeds for different technology platforms?

ANSWER: Yes, so as to meet the cost and implementation objectives of the ARRA, implement and demonstrate success quickly.

3) **No Comments**

4) Should the threshold speeds be symmetrical or asymmetrical?

ANSWER: Most all IP needs are asymmetrical, lower speeds in (transmitted) toward the internet and higher speeds received. The technology chosen should be capable of Video broadcast and multicast. This is necessary for Distance Learning.

5) How should the BTOP consider the impacts of the use of shared facilities by service providers and of network congestion?

ANSWER: Quality of Service (QoS) guarantees.

c. **No Comments**

d. Are there other terms in this section of the Recovery Act, such as “community anchor institutions,” that NTIA should define to ensure the success of the grant program?

ANSWER: Yes, the terms libraries, schools, universities, community centers, and public safety should be defined.

e. **No Comments**

14. **No Comments**

15. **Other Comments:** The role of satellite technology to meet the objectives of ARRA, BTOP and RUS.

Spacenet Inc. is a Virginia based company with over 28 years of experience in the field of satellite networking. As a company committed to delivering broadband to unserved and underserved markets in the US, we strongly suggest that satellite networking technology be given a priority as it is uniquely positioned to meet the goals of the National Telecommunications and Information Administration’s BTOP project as well as the USDA’s Rural Utilities Services program. Satellite technology is distance insensitive, content neutral, and offers broadband coverage to the entire United States and its Territories. When used in conjunction with terrestrial and other wireless technologies it can provide broadband Internet access in both rural and urban environments. Additionally, satellite services can provide near instantaneous communications restoration in the event of natural or man made disasters.

- **“Accelerate the deployment of broadband to areas which are unserved and underserved”**
Today, broadband satellite services are available across the United States including rural areas. However, the barrier for broader and deeper adoption by consumers and small businesses tends to be the start up costs. With additional government funding, this barrier to wider adoption can be eliminated. In addition, the overall start up costs per location to enable broadband access via satellite is significantly less than the equivalent capital expenditures required for terrestrial alternatives. In fact, the primary reason that areas of the country are unserved today is the cost of extending coverage through cabling. Overall, satellite solutions for low population density areas are unique in their ability to provide a wide variety of speeds and service options that meet the needs of Consumers, Small Home Offices, Small Businesses, Schools, Libraries, Community Centers and Public Safety organizations, efficiently. A satellite based solution is unique in its ability to serve the people of the community and in the case of an emergency provide “Bandwidth On Demand” for the Public Safety organizations. Terrestrial alternatives cannot accomplish this “shared” cost approach. With satellite technology, broadband services can be deployed to these users in months, not years.
- **“Create Jobs”**
The satellite industry relies on numerous equipment manufacturers in the U.S. as well as satellite operators, local satellite dealers and installers, and construction contractors. With the growth and expansion of satellite services, new jobs can be created to support all of these businesses, and more importantly, would be created in the local market they are serving. A unique strength of satellite technology is that it can be deployed quickly, therefore enabling job creation to also happen quickly. Satellite networks are also an ideal technology platform to support distance learning programs, which can be utilized to retrain people for jobs in growth industries.
- **“Provide significant Public Benefit”**
Spacenet has a successful track record of working with state and local governments as well as Public Safety and Health Care organizations providing reliable satellite services for primary, backup and emergency response networks. The proven benefits that satellite offers for organizations like these and the public overall

can be delivered now, not years from now. In addition, satellite bandwidth can be “On Demand” therefore allowing continuous use by Schools, Community Centers, and Libraries etc. In the case of an emergency or failure of the terrestrial infrastructure, the satellite bandwidth can be nearly instantaneously “re-purposed” for use by public safety organizations. Therefore, satellite can serve as a ‘shared’ service among multiple organizations, providing a reliable and always available, cost-effective broadband solution.

The 5 Purposes of the BTOP Grants

- **“Provide broadband services to consumers in unserved areas”**
While there are some satellite services available today, to rural consumers, the barrier to adoption to most consumers is the startup costs they are burdened with. The penetration of this service to consumers can be broadened with government funding to subsidize the consumers’ initial startup costs, This could be similar to the Digital Converter Coupon Program of the NTIA. Also, broadband sustainability can be enhanced through innovative programs that provide consumers an extended trial period and training, which can ultimately lead to long-term use by the consumer.
- **“Improve access to underserved areas”**
Satellite is ideal for remote, rural, or even suburban areas with little or no access to common carrier broadband like DSL/cable modem or fixed wireless. Spacenet’s satellite services provide an always-on, high-speed satellite Internet service to consumer, small office/home office customers, as well as to small, medium, and large size businesses across all parts of the U.S. These services power any rural area with professional broadband services. Through the process mentioned in the above bullet point, competition will be assured in areas where only one provider exists. Speeds can be established in a fashion that meets the needs of any consumer.
- **“Provide Broadband access for: Schools, Libraries, Colleges, Community Centers and Health Care providers”**
Satellite networks provide a superior broadband connectivity solution for multiple types of applications including high-speed Internet access, Web-based applications, and distance learning. It also is available virtually everywhere, enabling broadband access for any School, Library, College, Community Center and Health Care provider. There is no need for cable or fiber facilities and infrastructure, which are costly to install and take years to deploy. In addition, satellite services can be delivered at very high speeds, which can then be distributed to all local facilities and organizations.
- **“Provide Broadband for Public Safety Agencies”**
Today, Spacenet provides fixed and mobile broadband satellite communications services to a number of Public Safety Agencies including police departments and emergency responder organizations. Satellite provides reliable backup and emergency communications to ensure critical communications always stay online and to enable coordination with other agencies and support personnel. Satellite bandwidth can be ‘continuous’ or ‘On Demand’ as needed, providing a more cost effective option to those that only need a part-time service. In addition, the service can be used ‘continuously’ by non-emergency organizations (Schools, Libraries, Colleges, Community Centers Libraries), and switched over to Public Safety Agencies in the case of an emergency. This unique capability of a ‘shared’ approach is not offered by terrestrial alternatives.
- **“Stimulate demand for broadband services thereby creating economic growth and job creation”**
Satellite networks can be rolled out to hundreds or thousands of locations in a fraction of the time required for a comparable terrestrial network, thereby enabling job creation for the supporting equipment manufacturers, satellite operators, installers and construction contractors to happen quickly. The broadband service delivered can be sized and priced to meet the needs of all users including Consumers, Home Offices, Small Businesses, Schools, Community Centers and Public Service Organizations. In addition, satellite communications is the only broadband network technology that is available everywhere, including rural areas nationwide.

RUS Related Questions.

1. What are the most effective ways RUS could offer broadband funds to ensure that rural residents that lack access to broadband will receive it?

ANSWER: Subsidize the consumer start-up costs.

For a number of years, RUS has struggled to find an effective way to use the Agency’s current broadband loan program to provide broadband access to rural residents that lack such access. RUS believes that the authority to provide grants as well as loans will give it the tools necessary to achieve that goal. RUS is looking for suggestions

as to the best ways to:

a. **No Comments**

b. **No Comments**

c. Ensure that Recovery Funding is targeted to unserved areas that stand to benefit the most from this funding opportunity.

ANSWER: Use state agencies maps and advice.

2. **No Comments**

In the Recovery Act, Congress provided funding and authorities to both RUS and the NTIA to expand the development of broadband throughout the country. Taking into account the authorities and limitations provided in the Recovery Act, RUS is looking for suggestions as to how both agencies can conduct their Recovery Act broadband activities so as to foster effective broadband development. For instance:

a. RUS is charged with ensuring that 75 percent of the area is rural and without sufficient access needed for economic development. How should this definition be reconciled with the NTIA definitions of “unserved” and “underserved?”

ANSWER: Unserved – there is no economically attractive broadband service offered. Underserved – There is no economically attractive competitive broadband service offered, or the service offered is too slow for effective use.

b. **No Comments**

3. **No Comments**

Seventy-five percent of an area to be funded under the Recovery Act must be in an area that USDA determines lacks sufficient “high speed broadband service to facilitate rural economic development.” RUS is seeking suggestions as to the factors it should use to make such determinations.

a. **No Comments**

b. What speeds are needed to facilitate “economic development?” What does high-speed broadband service mean?

ANSWER: 256 – 512 Kbps minimum in to the Internet, and a minimum of 2 Mbps from the Internet for consumers. Higher speeds are often required for community centers, libraries, schools, and public safety organizations.

c. **No Comments**

4. **No Comments**

5. **No comments**